

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings, of claims in this application:

Listing of Claims:

1. (Currently Amended) For use in the detection of an occurrence of a physiological action imparting a displacement to a body part at a natural frequency signature, a bio-filter pad comprising a topside and an underside for respectively facing away from and toward the body part and a viscoelastic interior, said bio-filter pad adapted for intimate juxtapositioning against the body part, and having a mechanical resonance frequency at an associated frequency midway in the range of the frequency signature associated with the physiological action.
2. (Currently Amended) The pad according to claim 1 further comprising a peal-off protective liner for exposing an adhesive surface suitable for removable intimate adhesion of at least a portion of said underside of the bio-filter pad onto the body part.
3. (Original) The pad according to claim 1 wherein said

viscoelastic interior has concentric sections for focusing mechanical energy imparted to the bio-filter pad due to a displacement of the body part lying thereunder toward a transducer centrally disposed on its topside facing away from the body part.

4. (Original) The pad according to claim 1 and further comprising a restraining member on its topside for removably intimately mechanically coupling a transducer to its topside.

5. (Original) The pad according to claim 4 wherein said restraining member slidingly receives said transducer.

6. (Original) The pad according to claim 1 wherein the bio-filter pad is sized and shaped for conforming to an expectant mother's abdomen, and has a mechanical resonance frequency midway in the natural fetal activity frequency signature for fetal activity monitoring purposes.

7. (Original) The pad according to claim 1 wherein the bio-filter pad is intended for single patient single use.

8. (Currently Amended) A method for detecting an occurrence of a physiological action imparting a displacement to a body part at

a natural frequency signature, the method comprising the steps of:

(a) intimately juxtaposing a bio-filter pad against the body part, the bio-filter pad having a viscoelastic interior, and a mechanical resonance frequency at an associated frequency midway in the range of the natural frequency signature associated with the physiological action;

(b) intimately mechanically coupling at least one transducer against the topside of the bio-filter pad for generating electrical signals in response to displacements of the body part; and

(c) processing the electrical signals for detecting occurrences of the physiological action.

9. (Original) The method according to claim 8 wherein step (a) includes the step of removing a peal-off protective liner from the underside of the bio-filter pad exposing an adhesive surface for removable intimate adhesion of the bio-filter pad onto the body part.

10. (Original) The method according to claim 8 wherein step (b) includes removably sliding the transducer under a restraining member on the topside of the bio-filter pad.

11. (Original) The method according to claim 8 and further

comprising the step of focusing mechanical energy imparted to the bio-filter pad due to a displacement of the body part lying thereunder toward the transducer.

12. (Original) The method according to claim 8 wherein the bio-filter pad is sized and shaped for conforming to an expectant mother's abdomen, and has a mechanical resonance frequency midway in the natural fetal activity frequency signature for fetal activity monitoring purposes.

13 - 16 (Cancelled).

17. (New) The pad according to claim 1 wherein the associated frequency is midway in the range of the frequency signature associated with the physiological action.

18. (New) The method according to claim 8 wherein the associated frequency is midway in the range of the frequency signature associated with the physiological action.

19. (New) For use in the detection of an occurrence of a physiological action imparting a displacement to a body part at a natural frequency signature, a bio-filter pad comprising:

a. a topside and an underside for respectively facing away from and toward the body part, and a viscoelastic interior having

a mechanical resonance frequency which is a harmonic of the natural frequency signature associated with the physiological action;

b. a peel-off protective liner for exposing an adhesive surface for removable intimate adhesion of at least a portion of said underside onto the body part for intimate juxtapositioning said underside, and hence said viscoelastic interior, against the body part so as to provide for physical amplification displacements of the body part; and

c. a restraining member mounted on said topside for removably intimately mechanically coupling a transducer to said viscoelastic interior for generating electrical signals in response to displacements of the body part.

20. (New) The pad according to claim 19 wherein said restraining member slidingly receives said transducer thereunder.

21. (New) The pad according to claim 19 wherein said viscoelastic interior has a mechanical resonance frequency midway in the range of the frequency signature associated with the physiological action

22. (New) The pad according to claim 19 wherein said viscoelastic interior has concentric sections for focusing mechanical energy imparted to the bio-filter pad due to a

displacement of the body part lying thereunder toward a transducer centrally disposed on its topside facing away from the body part.

23. (New) The pad according to claim 19 wherein the bio-filter pad is sized and shaped for conforming to an expectant mother's abdomen, and has a mechanical resonance frequency midway in the natural fetal activity frequency signature for fetal activity monitoring purposes.